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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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29858	7590	03/28/2006	EXAMINER	
BROWN, RAYSMAN, MILLSTEIN, FELDER & STEINER LLP 900 THIRD AVENUE NEW YORK, NY 10022			HASSAN, AURANGZEB	
			ART UNIT	PAPER NUMBER
			2182	

DATE MAILED: 03/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/663,384	Applicant(s) LU ET AL.	
	Examiner Aurangzeb Hassan	Art Unit 2182	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 September 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/02/04-10-07-05</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

1.) reference character "58" in figure 2 has been used to designate both a stream and a tape; and

2.) they include the following reference character(s) not mentioned in the description: elements 54a, 56a, and 58a.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

2. The preliminary amendment for a replacement of title to "COMBINED STREAM AUXILIARY COPY SYSTEM AND METHOD" has been acknowledged. The applicant is

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required to make appropriate corrections on page 1, lines 1 and 2, to reflect such amendment.

3. The disclosure is objected to because of the following informalities: paragraph [0053] recites "prior art in step S12" examiner noted appropriate corrections to reflect "S112" and notes that the applicant is required to make corrections to all minor informalities.

Appropriate correction is required.

Claim Objections

4. Claim 4 is objected to because of the following informalities: applicant cites the use of "whether the transfer". The examiner will interpret "whether" as "wherein" to make the claim more lucid. Appropriate correction is required.

5. Claims 7 and 8 are objected to because of the following informalities: "from third storage medium" should be expressed as "from the third storage medium." Examiner will interpret the claim as its corrected form. Appropriate correction is required.

Claim Rejections - 35 USC § 112

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 3, 4, 7, 8 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Claim 3 recites transferring from a first and second storage medium to a fourth storage medium using a fourth data stream and further based upon a type of data of the data source. Claims 7 and 8 recite transfer from the first and second portion of data directly from the third medium to a fourth storage medium, which is not supported in the specification. The specification at best provides support for only a fourth storage medium connected to the media adapter but not to the first and second through a combined stream parallel to the third stream or as a fourth stream directly from the third storage medium to the fourth storage medium. The examiner notes there is no support in the specification of a recitation of a process.

Claim 4 is dependent from claim 3 and is therefore rejected accordingly.

8. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

9. Claim 9 recites the limitation "the third medium" in line 4 of page 21. There is insufficient antecedent basis for this limitation in the claim. The examiner will interpret the claim to recite "the third storage medium" (emphasis added).

10. Claim 9 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Line 4 of claim 9 recites a "third storage medium connected to the media agent" and lines 8 and 9 recite "transfers the first and second portion of data from the first and second storage medium to the third storage medium using a third combined stream." It is unclear how the third storage medium is connected to both the media agent as well as a third data stream which is combined from the first and second storage media, since in order to receive the combined stream, the third storage medium must be connected to the first and second storage medium instead of the media agent.

Correction/clarification required.

The following rejections are made based on the examiner's best interpretation of the claims in light of the 35 USC 112 rejections.

Claim Rejections - 35 USC § 102

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

12. Claims 1 thru 6 and 8 thru 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Amundson et al. (US Patent Number 6,154,852 hereinafter “Amundson”).

13. As per claims 1, 9, and 11 Amundson teaches a method, system and a recording medium for transferring data in a storage system, the storage system comprising a management server (element 102, figure 1), a media agent connected to the management server (I/O Adapter, element 114), a plurality of storage media connected to the media agent (tape drive 1 – N, element 118, figures 1 and 2), and a data source (file data object, element 136, figure 2) connected to the media agent, the method comprising:

dividing the data source into at least a first and a second portion of data (File Data BLK, element 408, figure 4, column 4, lines 26 – 30);

transferring the first and second portion of data from the data source to a first and a second storage medium (tape 1 and 2, element 118, figure 2) using a first and a second data stream respectively (column 3, lines 22 – 49);

transferring the first and second portion of data from the first and second storage medium to a third storage medium using a third combined data stream (recovery can be performed using any number of tape drives from a single, column 12, lines 13 – 34).

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14. As per claims 2 and 10 Amundson teaches a method and a system, wherein the transfer from the first and second storage medium to the third storage medium is performed in chunks (split into reasonable chunks, column 11, lines 36 – 47).

15. As per claim 3, Amundson teaches a method comprising:

transferring the first and second portion of data from the first and second storage medium to the third (recovery can be performed using any number of tape drives from a single, column 12, lines 13 – 34) and a fourth storage medium using the third combined data stream and a fourth data stream respectively (column 12, lines 13 – 34); and

wherein the transfer using the third and fourth data stream is performed based on the type of data of the data source (types of data, column 6, lines 36 – 49).

The examiner interprets Amundson to teach a third storage and a fourth storage to be two recovery tapes that are not identical to those used during the backup process (column 12, lines 20 – 23). The recover process involves mounting different tapes that is further interpreted to represent differing streams in connection.

16. As per claim 4, Amundson teaches a method wherein the transfer using the third and fourth data stream is performed substantially in parallel (Enhanced Parallel Backup and Recovery method, column 3, lines 23 – 33).

17. As per claim 5, Amundson teaches a method wherein the transfer using the third data stream is performed based on a client identification of the first and second portion of data (Collaborative File ID, element 150, figure 2, column 5, lines 25 – 32).

18. As per claim 6, Amundson teaches a method wherein the transfer using the third data stream is performed based on respective stream numbers of the first and second streams (column 6, lines 1 – 14).

The collaborative file id allows for proper data stream recombination in the recovery stage as taught by Amundson.

19. As per claim 8, Amundson teaches a method comprising transferring the first and second portion of data from a third storage medium to a forth storage medium based on respective offsets (header and trailer labels, elements 402, 404, 412, 414, figure 4, column 4, lines 16 – 20) of the first and second portions of data stored on the third storage medium (column 4, lines 9 – 25).

As interpreted in claim 7, the examiner asserts the transfer from third to a fourth storage medium is analogous to an initial backup and as cited for the Enhanced Parallel Backup and Recovery operation the labels are not affected. Thus a backup will include such respective offsets throughout the process.

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20. As per claim 12, Amundson teaches a method for transferring data in a storage system, the storage system comprising a management server (element 102, figure 1 column 2, lines 40 –55) including a storage policy (media definition, element 140, figure 2, column 2, lines 56 – 67) , a media agent connected to the management server (I/O Adapter, element 114, figure 1, column 2, lines 40 –55), a plurality of storage media connected to the media agent (tape drive, element 118, figures 1 and 2), and a data source (file data object, element 136, figure 2) connected to the media agent, the method comprising:

dividing the data source into at least a first and a second portion of data (File Data BLK, element 408, figure 4, column 4, lines 26 – 30);

transferring the first and second portion of data from the data source to a first number of pieces of storage media (multiple tape drives, element 118, figure 1 and 2, column 3, lines 22 – 49);

transferring the first and second portion of data from the first number of pieces of storage media to a second number of pieces of storage media, the second number being less than the first number(recovery can be performed using any number of tape drives from a single, column 12, lines 13 – 34).

The examiner interprets the first and second stream, as Amundson teaches, to represent the connection between the first two tape drives in the backup process respectively. The examiner further interprets the recovery process combining at least the first and second storage media into the third single recovery tape drive media.

Amundson teaches a system where a primary set of streams is used in a backup process and upon completion a recovery process combines data from the backup tapes into the recovery tapes.

Claim Rejections - 35 USC § 103

21. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

22. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Amundson in view of Largman et al. (US Publication Number 2004/0210796 hereinafter Largman).

23. As per claim 7, Amundson teaches a method comprising transferring the first and second portion of data from a third storage medium to a fourth storage medium (column 3, lines 50 – 61).

Claim 7 recites usage of the fourth stream in series with the third stream after a first and second portion of data has been combined into the third storage medium. The examiner notes Amundson's invention can be utilized in multiplicity and views the third storage medium to be further backed up, i.e. a tape medium can be backed up and

recovered in multiple instances with multiple independent storage devices at the users discretion. Accordingly the examiner rejects the fourth stream and fourth storage medium on the grounds of further backing up the restored medium in the embodiment of the third storage medium. According to Amundson the third storage medium can be backed up using a fourth stream and fourth storage medium through the backup process.

Amundson fails to teach a method comprising transferring the first and second portion of data from a third storage medium to a forth storage medium based on respective times when the first and second portions of data were created.

Largman teaches in an analogous method, transferring the first and second portion of data from a third storage medium to a forth storage medium based on respective times when the first and second portions of data were created (creation date, paragraph [0336] lines 1 – 6).

It would have been obvious to one of ordinary skill in the art at the time of the applicant's invention to modify the method of Amundson with the above teachings of Largman. One of ordinary skill in the art at the time of the applicant's invention would have been motivated to make such modifications in order to facilitate freedom for the user defined restoration as suggested by the reference (paragraph [0336], lines 1 – 4).

Conclusion


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24. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aurangzeb Hassan whose telephone number is (571)272-8625. The examiner can normally be reached on Monday - Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Huynh can be reached on (571)272-4147. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AH
3/10/2006



KIM HUYNH
SUPERVISORY PATENT EXAMINER
3/17/06